

**DX7 II USER CLINIC!**



SEP.'87

# KEYBOARD<sup>®</sup>

**O** MICHAEL  
MARTIAN

KEEPING FAITH  
IN THE STUDIO  
WITH DE BARGE  
PETER CETERA  
CHRISTOPHER CROSS

**HOME STUDIO TAX TIPS**

**OINGO BOINGO!**

**FREE RECORD**  
ORCHESTRAL SYNTHESIS

**PRODUCT  
REVIEWS**

CASIO FZ-1  
ROLAND D-50  
AND MORE...



**DAVE STEWART**  
SYNC TO VIDEO



# KEYBOARD

SEPTEMBER 1987

## FEATURES

### 90 MICHAEL OMARTIAN

The hit-making keyboardist/producer behind Peter Cetera, Donna Summer, and Rod Stewart steps out from behind the console with a powerful solo album. Controversial, opinionated, and respected by his colleagues, Omartian speaks out on drum machine overkill, the gap between technology and musical know-how, and the limitations of Christian music.

### 18 PROFILE: MICHAEL STEARNS

Giant-screen synthesis and high-tech hiking.

### 21 PROFILE: RUSSELL SHERMAN

Golf meets archeology on the classical keyboard.

### 30 OINGO BOINGO

Not a cult, not a mantra, Oingo Boingo is a longtime underground outfit that is finally winning an above-ground following. Bandleader Danny Elfman discusses the group's intricate sample library, explains why they work without a full-time keyboardist, and outlines his approach to solo film scoring.

### 42 YAMAHA DX7II: A USER'S GUIDE

Undocumented features, unexplained procedures, and other secrets your mother never told you about one of the hottest new keyboards on the scene.

### 58 BRIAN BANKS & ANTHONY MARINELLI

One of the top session teams in Los Angeles discusses how to make it in the film music game. All you need is talent, dedication . . . and it doesn't hurt to have a couple of Synclaviers.

### 66 SOUNDPAGE: 'LEAP FROG'

A giant green beast attacks Bugburg in *Pinocchio* & *The Emperor Of The Night* as an orchestra thunders its accompaniment. The frog isn't real, and neither is the orchestra.

### 78 ADAM MAKOWICZ ON THE BLUES

In words and music, a Polish emigré piano giant shows how to explore jazz piano from the roots up.

### 82 TAXES & YOUR HOME STUDIO

Don't wait until the zero hour next April. With these guidelines, you can plot your tax strategy and find the write-offs you need for your home studio now.

### 114 KEYBOARD READERS' POLL

Your chance to pick the best keyboard players of 1987.



World View — Page 22



Soundpage — Page 66



Jazz — Page 78

## PRIVATE LESSONS

- 110 Jazz Piano  
Bill Evans voicings.
- 112 Technical Exercises  
Chordal tension.
- 120 Contemporary Piano  
Between the wars.
- 124 Freelance Piano  
Lounge Of Fame,  
Part 2.
- 125 Applied Theory  
Weird scales.
- 126 Rock Keyboards  
Scoring for TV.

## TECHNOLOGY

- 128 Patches  
DX7, CZ-101, &  
DW-8000.
- 131 Software  
C & Pascal  
references.
- 132 Digital Sampling  
Ambience.
- 134 Applications  
Key mapping.
- 135 Piano Technician  
Tone.

## KEYBOARD REPORT

- 136 Casio FZ-1  
16-bit sampler.
- 144 Roland D-50  
Digital synthesizer.
- 148 Korg DDD-5  
Digital drum  
machine.

## DEPARTMENTS

- 6 Letters
- 12 Guest Editorial
- 17 Reader Tips
- 22 World View
- 26 In Review
- 28 Freff
- 152 Spec Sheet
- 156 Classified Ads
- 162 Advertiser Index

Cover photo by Ann Summa: for equipment identification, see page 91.



# SYNTHESIZER UPSTARTS CONQUER HOLLYWOOD

BRIAN  
BANKS  
&  
ANTHONY  
MARINELLI

SOUNDPAGE EXCLUSIVE  
ELECTRONIC  
ORCHESTRA  
PAGE 66

BY JEFF BURGER

**M**AKING FILM MUSIC IS A CRAZY way to earn a living, but some people have it crazier than others. How many film composers are asked to produce techno-pop for Giorgio Moroder one day, create an ersatz orchestra for Steven Spielberg the next, and then mix the sound of mosquitos into Buffy Sainte-Marie's voice to make a string sound? Meet Brian Banks and Anthony Marinelli, a.k.a. Sonar Productions. In their 10 years as partners, Banks and Marinelli have gone from being school pals to film industry staples. Lately, working on such big-budget extravaganzas as *Cat People*,

*Clan Of The Cave Bear*, and *The Color Purple* is all in a day's work at Sonar's Hollywood studio.

The two synthesist/composers met nearly 20 years ago as piano students under the same teacher. Independently, both graduated to ARP 2600 synthesizers in the mid-'70s, and eventually found themselves once again studying under the same teacher, studio synthesist Clark Spangler. In 1977, they joined forces to perform synthesized arrangements of classical music for live radio broadcasts from the Museum of Natural History in Los Angeles. During that period, the duo led

six Yamaha CS-80s through such masterpieces as Beethoven's *Eighth Symphony*, Bach organ works, and Scott Joplin rags. After pooling their resources to buy an eight-track tape recorder and setting it up in Marinelli's parents' garage, the team started getting calls for commercial work. This led to their exposure to, and acquisition of, a New England Digital Synclavier—and things just haven't been the same since.

The Synclavier proved to be the calling card they needed to kick their careers into high gear. "FM was a major thing," Marinelli recalls. "That's what the system had to offer, and that's why we got into it. There was no terminal and no sampling, and the DX7 was still a good two years in the future. The Synclavier, coupled with our demo tape, which consisted of classical pieces, got us *Blue Thunder* over the name synthesists of the time. We could combine scoring, arranging, and making a big sound using FM to get new sounds. When we got *Blue Thunder*, everything took off."

After three months of work, they had transformed Arthur B. Rubinstein's musical sketch into one of the first scores realized on a digital synthesizer—and this time the orchestra was used to sweeten the synthesizers, rather than the other way around. The word spread quickly, and composers began turning to Banks and Marinelli as arrangers, orchestrators, and synthesists all rolled into one. Rubinstein called them back for *War Games* and *The Best Of Times*, Larry Rosenthal hired them for *Heart Like A Wheel*, and Jack Nitzsche used the duo for *Starman*, *Stripper*, and *Stand By Me*. Then came Quincy Jones' score for *The Color Purple* and—well, their film bio alone is four pages long! And then there are the record credits, which include an obscure album called *Thriller* by a guy named Michael Jackson.

Through it all, the two synthesists worked out of a garage. Two years ago, however, Sonar moved to a custom-designed studio in the heart of Hollywood. Banks says, "People would come to the garage and say, 'Gee, those kids are great.' Now they call us 'guys!'" The 'guys' have a 24-track room decked out with a video system and every imaginable piece of audio equipment, including two Synclavier systems. The off-line system has 32 FM voices, SMPTE, a touch-sensitive keyboard, a 20-Meg Winchester hard disk, and a Kennedy tape drive. Along with 32 FM voices, the on-line unit sports 16 voices of sampling, eight megabytes of sampling memory, and eight individual outputs. Sonar's battery of support synths includes a Roland Super Jupiter, an Oberheim Xpander, a Prophet-5 with MIDI, a DX7, four ARP 2600s driven by MIDI-to-control-voltage converters, and more. Of course, there's also a Yamaha C7B grand, for those times when a sampled piano just won't do.



One of Sonar's most recent projects is Sylvester Stallone's *Over The Top*, with music by Giorgio Moroder, who originally called Banks and Marinelli for *Cat People*. "He had just bought a Synclavier," Banks remembers, "and, like many Synclavier owners, he thought it was great, but didn't have any way of getting into it. So we programmed it." Keyboard caught up with Banks and Marinelli at their studio, where they were taking a breather between sessions for the Stallone film and two new projects, *Nice Girls Don't Explode* and *Pinocchio And The Emperor Of The Night*.

\* \* \* \* \*

**D**O YOU RELY ON THE SYNCLAVIER for most of your work?

**Banks:** As much as we may not like to tie our success to a hunk of hardware, having a Synclavier early on was really our calling card. There wasn't any competition. DX7s were still a long way off, and even with 32 DX7 algorithms, there isn't one that sounds like a couple of the setups that are on the Synclavier. We have a DX7 here, and it does some FM synthesis that the Synclavier doesn't, but they're different. Also, Anthony got very involved with consulting for the development of the Synclavier. A lot of things that are on the instrument are our fault! It's a nice feeling to be involved in the development of a musical instrument.

*Why do you need two Synclaviers?*

**Marinelli:** There are two of us! Actually, one Synclavier lives in the recording studio and is used almost exclusively for performance, and the other is in the B room. We use that one for composing and making our own sounds. We're trying to write music that's both idiomatic to the instrument and married to video. Staying locked to picture all the time is really exciting. You can get such continuity. You can keep seeing the picture and reworking something, kind of like getting an orchestral performance the way Ravel might have.

*You have floppy disk drives, Winchester hard disks, and Kennedy tape drives. Why so many different storage media?*

**Banks:** Cost and convenience. Floppy disks are convenient, but they're more expensive per megabyte than Kennedy tapes, and the Kennedy is faster to retrieve from. We have a couple of hundred 15-Meg tape cartridges filled up. To keep that many floppy disks around is very time-consuming. Also, somebody has to sit there and feed them to the Synclavier. Just for a violin sound, we're into over 30 floppy disks. You're talking about a sample 50K long at 16-bit for every minor third across the range [of the keyboard]. We've got 13 or 14 [samples laid out] horizontally and up to three [layered] vertically. So you can have up to 45 16-bit 50K samples, and call that a violin.



ANN SUMMA

**Marinelli:** Each sample, except for the hard down-bows, is between two and six seconds long. Manufacturers brag about 17 seconds worth of sampling—we fill eight Meg of RAM with one instrument. At 50K, sampling with 16-bit words, you get roughly 10 seconds per megabyte, so eight Meg is 80 seconds. That's how much we're using for one instrument. That's how you get great sounds.

**Banks:** Because of our training and background, we spend a lot of time trying to make a great-sounding orchestra. We've made it our business to get a lot of great orchestral samples. It's getting harder and harder as the players get hip to the fact that we can do a good job of imitating them.

**Marinelli:** Four years ago, they wanted to look at the [sampled] waveform [on the Synclavier screen]—they loved it. Now you can't get the good players. We were always straight about it. We told them what

**Banks (L) and Marinelli with New England Digital Synclavier; original Garfield Dr. Click rests below Synclavier terminal.**

we were doing, and what it was going to be used for, and we tried to get people who were into it. If the players aren't into it, you're going to get rotten samples anyway. Part of our philosophy is to limit what we want to get in a night, because they'll blow themselves out and they won't get good tone on that many articulations in a night. We try to get three dynamic levels on everything. We go up in minor thirds, and then we try to get some articulations that we can stack vertically and bring in using velocity, pressure, pedals, breath control, and the control knob.

**Banks:** The sampling process is very laborious. You can assume that there are going to be takes that sound bad to your ear. Well, in order to guarantee that you've got one good take when you go to edit the



## BANKS & MARINELLI

samples, you'd better have two takes that you thought were good when they went down. There's no time, while a musician is sitting there, to listen to them all. You just keep rolling, and make sure that you have two that you think are good. One of them is bound to be good, and if we're lucky enough to get two that are good, that's great, because now we have a double.

*What do you use the double for?*

**Banks:** For an a due part [a unison part played by two of the same instrument]. Doubling the same sample doesn't work. If you double samples, you get awful, ugly, terrible phasing. And if you delay the waveform or pitch-change it, all you do is make an ugly phase-shifter out of it. You don't get the sound of two instruments. You need two whole different samples. Psychologically and, sometimes, musically, it's nice if they're from different players, but at least they must be different samples.

**Marinelli:** We hand-play all the parts, because if you're playing the bottom guy and the top guy has the melody, you would do different things with vibrato and dynamics. We put in pedal information and all kinds of stuff to give us separate control.

**Banks:** Often, we'll play a whole bunch of lines into the Synclavier—we have a 200-track recorder here. Then I can roll all these takes in nonjustified time or in justified time. I'll play both flute parts, or the

first and second violins, into the sequencer, but with three passes of each. Then I'll spread them out in stereo to put them on the multi-track.

**Marinelli:** A lot of times the performances are done in the composing room, because, as you're composing, if you learn to think clearly and take a little extra time, you can get your performances done.

*Do you find yourselves creating non-acoustic sounds on the Synclavier?*

**Banks:** One of the more interesting things we did was for *The Color Purple*. There's a scene where Celie, the main female character, is in her house, which is a dilapidated place with a leaky roof. It's pouring rain, and she's got little tin cans and pails all over the living room. Her sister has been in Africa and sends her letters. Hearing the plink-plink-plink of the rain in the tin cans reminds Celie of the kalimba [African thumb-piano] music her sister has been telling her about. So we were asked to come up with a sequence that would go from raindrops to kalimba. They gave us a piece of kalimba music to segue into.

**Marinelli:** We also did some of the voices in *Pinocchio And The Emperor Of The Night*. We did James Earl Jones.

**Banks:** He's the villain, the Emperor Of The Night.

*What did you do to him?*

**Banks:** Processed the hell out of him.

**Marinelli:** The amplitude of his voice gates a sound that's constantly changing, a whole 24 tracks' worth of sounds. The

24-track just runs, ticking off these sounds. Each track has up to 10 different sounds laid on it—espresso machines blasting air into Sparklets bottles, mosquitos multi-tracked and taken down five octaves, low voices moaning, all kinds of windy, low rumblings. They all gate in along with backwards reverb when he talks. It's a great sound.

**Banks:** And all starting with his voice, which is one of the greatest instruments around.

**Marinelli:** For *Starman*, the string sounds came from one mosquito in a jar. We multi-tracked it loads of times, all out of phase—it was just five minutes of mosquito, so we'd record a bit of it, pick up at another point later on and dub it over the front part, and so on until there were 36 tracks of it. It was like 36 string players. A lot of the string sounds were mosquito mixed with Buffy Sainte-Marie's voice.

**Banks:** We wanted some good drum sounds for *Fast Forward*, so we went to a high school gymnasium, with all the horrible echo, and bounced balls on the floor. They made great kick drums. Unfortunately, there was an air conditioner going. So I looked at the recording on the Synclavier's SFM screen [Signal File Manager, one of the Synclavier's sampling software packages] and saw that there was a spike around 18K. Nobody would have heard that in the gymnasium, but when you isolate a sound and then play it in a lower range, even a perfect fifth lower, it's right

# The Ultimate in MIDI Processing and Control From Voyce

If you are looking for a MIDI processor or controller, look to the leaders in MIDI control—Voyce. The advanced features of our 4-channel LX-4 and 9-channel LX-9 Controllers provide powerful MIDI control in a single, easy-to-use unit. Features such as:

- Dual MIDI input w/sequencer merge
- Simultaneous 4 or 9 channel output
- 2- and 3-way keyboard splitting
- MIDI filtering and mapping
- Patch change/octave shift control
- Volume/velocity control
- Channel on/off switching
- Multi-timbral module control
- Local on/off control

And to use these features, we put in a big, easy-to-use front panel, so you don't have to work with tiny, rack-mount controls.

And to store your MIDI setups, we added:

- 99 programmable MIDI setups
- 50 or 99 program chains/songs
- Footswitch program change
- External tape or MIDI data storage

But best of all, we left out the fancy chrome and price. At \$395 and \$595, the LX-4 and LX-9 provide unsurpassed MIDI performance for your dollar. It's the ultimate for your MIDI system.

See it at your Voyce Dealer today!



## Voyce

Professional Music Performance Products.



## BANKS & MARINELLI

there in your ear. So [using the software] I built a digital filter that removed a band between 17,950Hz to 18,050Hz. It worked just like a razor blade, removing just that frequency and leaving the rest of the sample untouched.

*How much do you use the sequencing aspect of the Synclavier?*

**Banks:** Extensively. We live and die inside of that sequencer. When we're doing an orchestral simulation, we play everything by hand into the sequencer. We use the sequencer because we can do editing in there that we could never do on tape.

**Marinelli:** Directors are always making changes at the last minute. We can just stick the floppy in, move some stuff around, and be done with it.

*You compose while you watch the picture, with the Synclavier locked to SMPTE?*

**Banks:** The Synclavier locks to picture with its own SMPTE interface. It'll track as slowly as one frame per second—you won't get any of those joyboxes to do that.

**Marinelli:** You hear your music at pitch, but it's slow.

**Banks:** You can tap a click track into the Synclavier. It's not just a sound reference for you to play against, but the justifying click track, so that if you want to do a justified [quantized] sequencer line against it, or if you're looking at it for beat reference on the screen, it's your actual click track.

Or you can type in the click: I want 87 clicks at this tempo, and then *accelerando* in the next 12 beats logarithmically to this new tempo, hang there for 12 beats, and then *ritard* down linearly in three beats to a new tempo.

**Marinelli:** The only movie we didn't use the sequencer for was *The Color Purple*, because we weren't doing the final score, except for that one cue with the raindrops. We did what we call Polaroids—we did the whole score, before it was recorded by orchestra. There were 18 composers, each with one or two or three cues. Quincy [Jones] had the themes on lead sheets which would go to the composer who was to work on a particular cue. The composer would write a six-line sketch, the sketch would come to us, and we'd fill it out for orchestra. We were just ripping through those cues. It was all hand-played directly to tape, with just two guys—one of us and our engineer, Mark Curry—recording up to six minutes of finished music a day. We did over 100 minutes of score like that. Those recordings went to Spielberg. he would look at them against picture, make changes, and send them back to the composer, who would send them back to us for a final version. Then we'd send them back to Spielberg. he was dealing with the real score as a temp score [temporary score, an already-recorded, often well-known, piece of music used until the actual score is ready]. We had to work fast, so it wasn't

our best orchestra. Six minutes a day was hell.

**Banks:** Making orchestral Polaroids is a side business of ours. It's music insurance for directors and producers. A union orchestra is going to cost between \$12,000 and \$19,000 for a three-hour session. If there are mistakes or changes to be made in the score, they have to call the orchestra back for a three-hour minimum call. They can hire us for three weeks for less money than it would cost them to hire a 90-piece orchestra for a six-hour day. Very often in an orchestral score there are two or three cues that might be questionable; the director is really worried about the big love scene or the big chase. For \$2,000 to \$5,000, they can have a very representative orchestral demo and know whether or not the cues are happening.

*How do you work together? What roles do you each play?*

**Banks:** All of the above. Generally, we both write, play, do business, talk on the phone. But we each have our strengths and weaknesses.

**Marinelli:** We started out trying to do everything together, but there was more and more demand. Dividing up the tasks enabled the quality to get exponentially better as we increased our output.

**Banks:** Typically, we work together most when we're developing themes for a project, much more so than in the day-to-day work once the project gets started. The major conceptual stuff we really col-

# BAG YOUR EFFECTS



## INTRODUCING THE RACK BAG

NOW YOU CAN RACK YOUR EQUIPMENT IN STYLE WITH THE CORDURA RACK STYLE CARRYING BAG FROM HYBRID CASES.

- Now there is no need to pay for expensive equipment racks.
- Easy to carry, extremely lightweight.
- Equipment works right in the bag, just zip open the front and back cover and plug in.
- Rack Bags are available in 1, 2, 3 or 4 space units (1 space = 1 3/4 inches) and in depths of 11, 14 or 18 inches.

FOR MORE INFORMATION, CALL OR WRITE:

**HYBRID<sup>®</sup>**  
CASES

1121-20K LINCOLN AVENUE, HOLBROOK, NY 11741  
(516) 563-1181



## BANKS & MARINELLI

laborate on. For instance, for *Nice Girls Don't Explode*, Anthony is doing the lion's share of the writing, while I'm doing the lion's share of production. It's faster that way because he's into the movie. He knows the characters and what's going to happen. I know what his floppy disk is going to look like when it gets to me.

*Is it possible for you to collaborate that way if you're not working in your own studio?*

**Banks:** One of the biggest reasons we put the studio together was the amount of software and hardware that had to be comfortably in place for us to be efficient. If we're going to have record producers, other composers, and advertising agents in here, we don't want them to feel like they're intruding on someone's backyard.

**Marinelli:** We were sidemen, too, and it was a drag to move all our stuff in and deal with a new engineer.

**Banks:** Giorgio Moroder has one of the finest studios in Los Angeles. When we did *Over The Top*, he gave us two days just to set up. We spent the better part of two days with [engineer] Brian Reeves setting up and getting the kinks out. The Synclavier lives in its own air-conditioned closet at our place. Giorgio didn't have that. We had to get special cables made, special MIDI cables with 50-foot runs, to put the Synclavier in its own private space.

**Marinelli:** We wanted to stay out of the studio business, but we ended up studio owners. We had to. We couldn't do our work running around on dates.

**Banks:** Doing sessions was dissatisfying for us on another level, too—the creative level. If you're in there and there are 60 other guys sitting there waiting for you to finish, you don't get to take time to get a sound the way you want it. So you call up presets. The technology allows for a lot of presets these days, but when you use them, you're not creating anything new.

**Marinelli:** When you're in your own room, you can do five things at once. You can load a sample in, pick up the phone, and practice the part you're going to play. It's really an efficient way to spend your day, and it's more fun. When you go on a date, it's "hurry up and wait." That's going to change, I think. Even the Record Plant [recording studio] built a synthesizer room.

*How much of the work you've been doing lately involves composing original music?*

**Banks:** Right now, all of it.

**Marinelli:** *Pinocchio And The Emperor Of The Night* is 85 minutes of orchestra that we're scoring now, and *Nice Girls Don't Explode* is 20 minutes, so we've got 100 minutes of orchestra to write in less than three months. Plus, we've got our clients: all the Suzuki Samurai commercials, KNBC News every week and—who

knows? We might be getting into records next month.

*Could you tell us about the Pinocchio project?*

**Banks:** It's absolutely wall-to-wall music. Occasionally, we've been allowed to take a breath, maybe for one sentence. No kidding!

**Marinelli:** This is our best orchestra [simulation] to date. For the strings, it has five or six articulations—tremolos, off-of-the-string bowing, arcos, pizzicato, different dynamic levels—and it's all triple-tracked. If you were to take a sampled string sound and play a fast run, the attacks would sound mechanical. The way to avoid that is to use velocity to control volume, decay time, and attack time, so that your attack times are slightly different on each note. If you play it by hand and multi-track it, overlapping different string samples, you can eliminate that problem.

**Banks:** You can't get legato strings with fewer than three tracks. If we had a Mitsubishi 32-track [digital tape recorder] or tons and tons of RAM [in the Synclavier], I'd probably do it five or six times. The question that always comes up is, "If you have three 16-violin samples, aren't you making the most gargantuan string sample in the world?" The answer is no, because when you play from one note to another with a 16-violin sample, you still get only one gate per note. Part of the mass that you

*Continued on page 69*

## We've got the SOUNDS

**D50 SOUNDS** — Just arrived, 256 new sounds on data disk for only \$40

**TX81Z SOUNDS** — 288 new sounds plus 24 performance memories on data cassette for only \$30

**CZ SOUNDS** — 320 patches on data disk or data sheets for \$30

**ESQ1 SOUNDS** — 240 progressive voices on data cassette for only \$30

**DX100/21/27 SOUNDS** — 288 new sounds on data cassette for \$30

**FB01 SOUNDS** — 96 new sounds plus 16 new configurations on data disk for only \$25

**DX7 SOUNDS** — 288 voices on data cassette (TX), data sheets (DX) or data disk (DX & TX) just \$30

**MATRIX 6 SOUNDS** — 100 progressive patches on data cassette for \$30

**POLY 800 SOUNDS** — 64 new programs on data cassette for \$15

Data disks work with any D50, FB01, CZ, or DX7 librarian/editor for the Atari ST or Commodore 64/128. Most sysex librarians also supported.

The SOUNDS are created by a staff of professionals. Visa, MC, COD orders welcome. Shipping \$1 per package, overseas \$5. Performance notes included. Demo tapes are \$4 and include free samples.

A full line of Atari ST and Commodore 64/128 software is available - call or write for prices.



**LEISTER PRODUCTIONS**

The Music Software Source  
14 Hill Blvd.  
Mechanicsburg, PA 17055  
717-697-1378



**SOUNDWARE OF AUSTIN**  
PRESENTS

**"This Business of MIDI"**  
AN INSTRUCTIONAL VIDEO

- The MIDI Language
- MIDI Applications
- Studio Technique
- Manual Included

Please Specify VHS or Beta  
Now Available For Immediate Delivery

Soundware of Austin  
PO Box 530242  
Austin Texas 78753



## PATCHMAN MUSIC

STUDIO TESTED PRO PATCHES

### CASIO CZ-101/1000/3000/5000

- Vol. I: Simmons, Marimbas, B-3, Moog Bass, Harps, Recorders, Log Drums, Tympani, Guitars.
- Vol. II: Includes Our Famous Grand Piano, Choirs, Studio Drums, Jazz Guitar, Slap Bass.
- Vol. III: Incl. 96-Stage Orchestras, Kalimba, Acoustic Bass, Gong, Vice Toms, Airy Pan Flute.
- Vol. IV: Studio Sound Track Effects. 42 Patches/Vol. Data Book \$19.95/Volume. Cartridge \$65/Volume. Blank 64 Voice RAMs \$48.

### ENSONIQ ESQ-1

- Vol. I: Real Piano, Assorted Bases, Drum Kits, Vice Toms, Orchestras, Harps, Brass, Pads, More!
- Vol. II: Jump!, Sampled Voice, Log Drums, Koto, Rock Kits, Orchestral Winds, B-3, Guitars.
- NEW!! Vol. III: Bright "DX" Patches, Pan Flute, Tack Piano, Clav, Rap Kick, Pads, Analogs, More!
- NEW!! Vol. IV: Studio Sound Track Effects. 40 Patches/Vol. \$19.95 each. Cassette only.

### YAMAHA DX100/27/27S/21

- Vol. I: Agogo Bells, Wood Flute, Thumb/Fender/Moog Bass, Guitars, Congas, Log Drums.
- Vol. II: Airy Voice, Layers, Leads, B-3, Kalimba, Tack Piano, Sitar, Simmons, Latin Percussion. 48 Patches/Volume. \$19.95 each. Book or Cass.

### KORG POLY-800/EX-800/POLY-800II

- Vol. I: Jump!, Grand Piano, Simmons, Airy Choirs, Orchestras, Acoustic & Moog Bass, B-3.
- Vol. II: Delay/Reverb Patches, Effects, Congas, Log Drums, Guitars, String Quartet. 64 Patches/Volume. \$19.95 each. Book or Cass. (POLY-800II Book only)

### YAMAHA DX7 and COMPATIBLES

- Vol. I: 64 Patches. Real Piano, Splits, Drums, Pads. "Sampled"/Thumb/Moog Bass. Book \$25.

All Volumes include Application Tips. Please specify Instrument, Volume, and Format. FREE Shipping within USA! Foreign orders add \$5.

Send check or money order (U.S. Funds) to:

**PATCHMAN MUSIC**

2043 Mars Avenue • Lakewood, OH 44107



## BANKS & MARINELLI

Continued from page 64

When a string section moves is that all the notes change at different moments. It's not only there 16 slightly different patches, but the start times and the durations aren't all the same. In a real orchestra, you've got 16 violinists doing it, so three sampled tracks is not a whole lot. But by the time you add a little reverb and a little D.L. [digital delay line], it seems to work itself out.

**Marinelli:** We also have our downs on velocity, so if you hit the key real hard, you've got a couple of different sounding sounds striking at once. We cheat that way. Also, the down-bows mixed with the up-bows give you more articulation. For every instrument, you've got to have a lot of patches.

*Do the various synthesizers in your setup play specific musical roles?*

**Banks:** It's all in the variety. The reason I don't see a [Yamaha] TX816 here is that it could give us eight guys that sound the same. If I want five clarinets, I don't want five variations of a DX clarinet. I want a DX clarinet, a Roland clarinet, an Oberheim clarinet, a Synclavier clarinet, and a sequential clarinet, because then I have five inherently different clarinets. A lot of the record stuff, quick orchestra stuff, and the rack synthesizer TV stuff has a very shallow sound because it's all one thing.

There's enough of that kind of writing around. It's fast and easy to do with synthesizers. There are a lot of people who are using synthesizers as a convenience. Now they can have all these sounds in their bedroom. For us, the synthesizer is our instrument. We started studying young, and we play all different kinds of music with it. I don't ever expect to be satisfied.

**Marinelli:** We always argue, "Who's ahead, the manufacturers or the players?" I say the manufacturers are ahead, because we still aren't writing music for the instrument [idiomatically,] the way Chopin wrote for piano.

**Banks:** But the artist is always pulling the technology. Artists aren't writing music that Anthony might call idiomatic to the instrument because the artist hears something else, and often has to fight with the instrument to get it. And then he'll have to settle for something in between. Drum machines like to go in loops, so you hear a lot of music that is segmented to a fault. Synthesizers have always been considered do-everything machines, but they've never lived up to it. Even old Moog synthesizers were supposed to be able to create any sound, and all you have to do is sit with one for a while and you'll know that that couldn't be further from the truth. The composer says, "Okay, now do this!" The machine says, "No." So the composer says, "Well, what will you do?" And it answers, "With this software update

and that hardware, I'll do this." So the composer says, "All right, I'll write this, but I really wish I could write that."

**Marinelli:** What is a synthesizer for? Is it an instrument, or is it the do-everything box? New England Digital is saying the Synclavier is a recording studio in a box, but it's not really.

**Banks:** It's really a new kind of tape recorder, musical instrument, and signal processor all rolled into one. It's not really a recording studio in a box—yet—because it doesn't employ EQ, an array of faders for mixing, or a room to put a musician in.

**Marinelli:** We don't have the sample-to-disk option yet, but we will by August, and when we do, we'll use the 24-track for no more than reverb returns. We'll have as many as 12 great stereo reverb sounds, and let the Synclavier play back the whole thing, all digitally, and master to CD, number to number—if it works. If the multi-track is doing no more than playing back reverb, the noise floor will drop by a tremendous amount, because reverb doesn't have to be very loud in the mix.

**Banks:** We're going to be getting eight Winchester drives worth of what NED calls direct-to-disk. They'll sample at up to 100K—no other digital recorder is even in that league—and you can get up to 26 minutes per drive. They're run by the Synclavier sequencer. Any number of those disks can be recording at any one time. Now, if you have a number of vocal takes

## SYNTH - AID

If you don't have the SPECTRUM™ sounds in your synth, you still haven't heard half of what it could really do --

Programming synthesizers is an ART as well as a science. Now you can have the same artistic edge as some of the top New York recording studios -- Patches by renowned programmer Jed Weaver. His artistic vision has created fantastic full-SPECTRUM™ sounds so good, you won't believe your ears (or your synth)!

**SPECTRUM™ For the Ensonic ESQ --** Amazing new sounds that will take your ESQ to a new plateau of performance. Each 80-voice Volume is full of all kinds of instruments -- acoustic and synthetic -- with emphasis on keyboards, of course. Just about every kind of sound you need for sequencing, recording, and mixing. (WARNING: Some of the pianos are so realistic, they're scary!)  
**voice ROM Cartridge --** Volume 1 or 2 -- \$49.95  
**voice RAM Cartridge --** Volume 1 or 2 (programmable memory) -- \$69.95  
**1-voice ROM Cartridge --** Contains both Volume 1 and 2 -- \$79.95  
**1-voice RAM Cartridge --** Volume 1 and 2 (programmable memory) -- \$134.95  
**1-voice ROM/RAM Cartridge --** 80 ROM sounds + splits/layers setup -- \$109.95  
**on Cassette --** Volume 1 or 2 -- or Disk (ST/Dr. T) -- \$34.95 Demo tape - \$5

**SPECTRUM™ For the Casio CZ --** Hundreds of satisfied customers have already let us know these are the best sounds and the best value anywhere. The voice cartridge actually contains -- through unique programming techniques -- more than 100 sounds! Digital, Acoustic, Synthetic, Analog, and FM style sounds.  
**voice Cartridge --** \$69.99 Sheets or Disk -- (Mac/ST) -- \$34.99 Demo tape - \$5

Order: send check or money order (faster). Call 800. Specify product and price. Please add \$3 shipping.

**Patch/Works**  
 MUSIC SOFTWARE™

Foreign (US\$ only) add \$4.50. NY State residents, add sales tax. Write for complete voice lists. ESQ™ Ensonic CZ™ Casio

P.O. Box 450 New York, NY 10024 (212) 873-2390



### New Albums From Our New Artists

ANTHONY PHILLIPS



PRIVATE PARTS AND PIECES VII. SLOW WAVES, SOFT STARS

The original guitarist of GENESIS now does for keyboards what he's done for guitar. (SYN 308)

WAVESTAR  
 MOONWIND



Brought to Audion's attention by Musical Starstreams, WAVESTAR blends the best of PINK FLOYD melodies and TANGERINE DREAM sequences. A very strong Audion debut. (SYN 309)

### From the Audion Recording Company

Available on Compact Disc; Chrome Cassette and High Quality Vinyl.

For a free catalog, please write to:  
 Audion Recording Company,  
 3619E Kennedy Rd., South Plainfield, NJ 07080

Marketed by PARAS, Distributed by Jem Inc., South Plainfield, NJ 07080



# GIVE UP YOUR MILK CRATES.



**MODEL AR1**  
18" Amp/Rack  
Stand—black

Our new patented Amp and Rack stand puts amp controls, effects and MIDI modules at your fingertips. So you hear more of what you play. The stand is solid. The height is adjustable. And it sets up in seconds. Give up your milk crates for a truly professional stand. Send for a free catalog and see for yourself.

## INVISIBLE®

Invisible Modular Stand Systems  
Dept. AR, P.O. Box 341, Accord, MA 02018-0341  
617-871-4787

## MIDI CONTROL YOUR MIXER

Midi-Fader<sup>™</sup> contains 8 MIDI controlled audio attenuators to automate your mix-down process. Simply connect Midi-Fader to your mixer and to your sequencer. A front panel dial allows you to smoothly change the volume of each attenuator. Midi-Fader sends data over the MIDI channel so your sequencer can record these volume changes. If your sequencer has editing, you can modify your volume tracks. As your sequencer plays your song, it sends MIDI data to Midi-Fader to adjust the volume levels in real time. Your mix-down will be easy and repeatable.

- Back-lit LCD display
- Clear graphical indication of fader settings
- Each fader assignable to a MIDI note or controller
- 128 user programs and system exclusive dumps
- 2U Rack mount box
- \$499



## iota systems

P.O. Box 8987 • Incline Village, NV 89450 • (702) 831-6302

Ask Toll Free Operator for Iota Systems

(Midi-Fader is a trademark of Iota Systems)

## BANKS & MARINELLI

for a pop tune, you can take one phrase from take 17 and stick it on take 1, and the computer will very gently cross-fade from one to the other and back. It puts a Band-Aid over the joint between the two, but it's completely nondestructive, so if you don't like the way it sounds, you can go back.

**Marinelli:** The next software will be a CD algorithm that figures out the numbers so that you don't have to go back to the analog domain to make a CD. Who knows what that'll sound like?

**Banks:** We're also getting their optical disk storage system, which records to 12-inch laser disks—two-gigabyte random-access disks. Our sample library will go on that. The cataloging structure is so sophisticated that the catalog on your Winchester tells you, if you have more than one laser disk, which disk the sound you want is on. They're setting the whole thing up as a database management system. A laser disk will hold 10,000 entries, and there's no way you could ever flip through that many entries. So you ask it, "Tell me what I've got in terms of pizz violins," and it'll tell you.

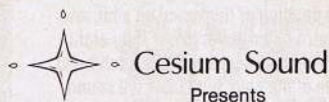
**Marinelli:** That's the dream-come-true. For what we do, the library work is a real pain in the neck. If it's all in one spot, I'll be in heaven.

**Banks:** The Synclavier is an interesting instrument. The world knows it's a very expensive animal. We have always approached the Synclavier on two levels. First of all, it's the greatest musical synthesizer we've ever dealt with. But also, for that kind of money, you have to ask yourself, "Is this a good business venture?" Until now, the sample-to-disk option wasn't cost-effective, even though it's the funnest thing in the world. There is nothing more wonderful than working on a tune with 16 tracks of live stuff and 200 tracks of samples, and you say, "Okay, let's go to bar 12," and boom—you're right there! But remember, there's music, and there's the music business. You have to pay attention to the music business. Otherwise, you can't have a Synclavier.

*Speaking of business, we understand that the American Federation of Musicians in Los Angeles recently accepted your proposal for a revision of the Union's wage scale for synthesists. What was your proposal, and why did you make it?*

**Banks:** Usually, when you're doing a film score, every player is paid for a three-hour minimum, and they're also paid per overdub. The theory is that if you play one line, go back to the head of the tape, and play another line that goes over it, in the old days you'd have been two people. So ever since multi-tracking became standard, anyone doing an overdub has been paid twice, as though there were two people. Now, if you start at the beginning of a cue playing your DX7, and then at bar 17 you play your [Oberheim] Xpander, and then you play your [Sequential] Prophet-5,





## Cesium Sound Presents The Professional ESQ-1 Library

by Nick Longo  
Expanded, upgraded  
400 no-nonsense presets  
"the best on the market"

Cartridge	Volume
A	1. Keyboards 2. Guitars and Bases
B	3. Drums and Percussion 4. Mallet Instruments
C	5. Lead Synths 6. Techno
D	7. New Age 8. Bells and Harps
E	9. Voices and Strings 10. Brass and Woodwinds

Programmable Cartridges A-E \$60.00 each  
Non-erasable Cartridges A-E \$45.00 each  
Volumes 1-10 on data cassette  
or Mirage disk \$15.00 each

Special sampler cassette with 40  
additional sounds and original  
demo sequences \$25.00

All orders include \$2.00 shipping. Demo cassette \$5.00.  
California residents add 7% tax.

1640 Walnut St. #C, Berkeley, CA 94709  
(415) 548-6193

ESQ-1, Mirage, and ENSONIQ are trademarks of ENSONIQ Corp.

## REAL TIME MUSIC SCORING

# ATARI ST • Sequencer • Editor • Notation \$99.95

MU-SCRIPT 1 for the 520/1040 ST

This feature-packed sequencer puts play-and-print at your fingertips. Use your MIDI instrument to make leadsheets, scores, and players parts. Simply play the part, then print it to the screen and printer with a few moves of the mouse. Or edit the MIDI data and add lyrics and chord symbols.

- 16 Track Sequencer, Autopunch, Quantize
- Merge, Clip, Append, Insert, Delete, Edit
- 1, 2, 3 or 4 stave score, Grandstaff track
- Transpose, Text Entry, Song List, more
- For use with Epson-type dot-matrix printer

OTHER PRODUCTS FROM QUIET LION  
MUSIC PRINTER GS for the Commodore 64 \$149.95  
Up to 4 stave printing of C-64 sequences, for  
Dr. T. Passport, Sonus, Steinberg, and Syntech  
DIATONICA-7 MIDI harmonizer for the C-64 \$79.95

Make check or R.O. payable to Quiet Lion.  
We pay shipping. CA res. add 6.5% tax.



QUIET LION  
(818) 765-6224  
P.O. Box 219  
Sun Valley, CA 91353

## BANKS & MARINELLI

those are called doubles, rather than overdubs. That started with the woodwind doubler, who plays a variety of instruments during a cue. Doubles are paid as additional fractions of scale. With all the new synthesizers, computers, and sequencers, the number of tracks a synthesist has recorded for a cue no longer bears any relationship to the work that is done. Also, when you're a synthesist, you play arranger, orchestrator, engineer—everything. We came up with a proposal that synthesists should be paid by the hour at an inflated rate, with an unlimited amount of overdubs, doubles or anything else they're called upon to do. We needed a more standardized way of doing things, so that we can all make money. Producers won't be afraid of us, because they'll know from the beginning how much it's going to cost. The scale that ended up being accepted was \$200 an hour for one synthesist and \$175 an hour for two or more synthesists. Scale for 25 or fewer orchestral players is \$199.16 per player for three hours, so it's roughly triple scale.

**Marinelli:** We've seen the tables turn. We've been together for 10 years, and in the beginning the Union didn't want any part of us. Using a synthesizer for a bass part was unheard-of. After a few years, we began to be treated like musicians. Then it got to the point where we were considered sidemen, but after a while we were doing bigger things than that—arranging, making sure the whole score got recorded properly. Now we can package the whole thing and deliver the finished product to the movie studio, and all they have to do is dub it.

*Is this going to satisfy the acoustic players who are losing work to synthesists?*

**Marinelli:** Whenever a new technology comes along, people get burned, and I'll do anything I can to help. It's like Social Security: You help the people who set it up for you. Well, those people set it up for us, and we owe it to them not to leave them out in the cold. But the realistic end of it is that it's going to be cooler than it has been in the past. Musicians have to stick together, though. There aren't very many people who really care about musicians in the business of film and recording.

**Banks:** To a greater or lesser degree, this stuff is inevitable, because film is a high-tech industry. Look at what they're doing in theaters, with six-track audio, all these computerized visual effects, and everything locked to SMPTE or VITC [Vertical Interval Time Code]. To have a computer-locked music system makes sense to people who are producing films because it fits right into what they're doing. If they can find composers who can make effective music with these systems—with whatever sounds they're capable of producing—it's bound to be less expensive, because it's tied more closely into the process of making the film. On one level you can say, "Why do I need 80 people, 30 micro-

## MIDI/MUSIC SOFTWARE

# BUY IT RIGHT THE FIRST TIME

BUY THE RIGHT SOFTWARE FOR THE RIGHT COMPUTER  
FROM PEOPLE WHO KNOW THE PRODUCTS



### MUSIC SOFTWARE

#### ATARI ST & 1040

Steinberg Sequencer 2.0.....  
Steinberg Pro Creator.....  
Steinberg Akai S900 Software.....  
Dr. T the Copyist.....  
Dr. T Midi Studio.....  
Dr.-Droid (limited quantity).....  
Hybrid Arts EZ Track.....  
Passport Midisoft Studio.....

#### Beam Team Editors IN STOCK!

#### IBM

Copyist By Dr. T.....  
Bacchus Voice Manager for Dx7 Series.....  
Bacchus Voice Editor TX81Z.....

#### APPLE

Sonus Midi Interface.....



#### AMIGA

Amiga 500 w/512k & Color Monitor.....  
Amiga 3 1/2 Disk Drive.....  
Amiga Texture Sequencer.....  
Mimetics Pro Studio.....  
Mimetics Sampler.....  
ECE Midi Interface.....  
Future Sound Sampler.....  
Deluxe Music 2.0.....  
EasyL Graphics Tablet.....  
Music-X Sequencer!.....

#### ATARI

Atari Double Sided Disk Drive.....  
Atari Single Sided Disk Drive.....  
Atari 1040 Color System.....  
Atari 1040 Mono System.....  
MACINTOSH SOFTWARE.....  
ESQ-1 Editor—Opcode NEW!.....  
Opcode CZ Editor NEW! w/Patch Factory.....  
Studio Plus Two Interface.....  
Opcode 2.5 Sequencer.....  
Opcode's Cue Film Music System.....



#### MACINTOSH

Jam—Factory.....  
M.....  
FB-01 Editor—Opcode.....  
Passport's Master Track Pro.....  
Southworth Music Jam Box.....  
Midi Paint.....  
Performer—New Version!.....  
Pro Composer.....  
Digidesign.....  
Deluxe Music 2.0.....  
Up Beat.....

#### Sony 3 1/2" Double Sided Disks

Precision 5 1/4" DS/DD Disks.....  
Precision AT Disks.....  
Everything We.....

Sell Is New & Factory Sealed  
Personal checks are accepted  
& take two weeks to clear

Leigh's Computers

1475 3rd Ave. NYC 10028  
Between 83 - 84th Sts.  
(212) 879-6257

ORDER  
BY  
PHONE



## BANKS & MARINELLI

phones, six recordists, and a big sound-stage when I can hire one or two people, and they can satisfy the picture and make great sounds?" And I'm not even talking about orchestral simulation. I'm talking about new sounds, whatever they may be.

**Marinelli:** But it should be the composer's decision. I don't want to see us all get squeezed out. The producer's dream is to hire a programmer and say, "Give me a score that sounds like this temp score." They want to pay you as a programmer, not as a composer. That's why we got involved with all this Union stuff in the first place. The Union hated us in the beginning, and we weren't exactly loving it. But we realized that we had to form a coalition, we had to find out who our real enemies are—not our enemies, but the people who don't care about the music, who only care about product. Now, I'm really afraid of the people who go in and say, "I'm a programmer. I'll work for a low hourly rate," \$25 an hour or something, and they end up composing, and people don't care. Not everybody cares about music.

**Banks:** Film studios and record producers want to hire people and call them programmers. That gets them off the Musicians Union contract and gets them in real cheap, but what it does is drag down the perceived value of the job to the degree that it's just like cleaning the toilets. When the perception of the value of the job drops to that level, then the musician has no leverage. There's someone around the corner saying, "Yeah, I'll knock that out. I've got an [E-mu] Emulator," or "I've got a Synclavier." Synclavier guys tend not to be like that, because they've got so much money invested in their equipment that they have to make their money back.

**Marinelli:** Look at the claims made by the ads in the magazines. The producers read these things and believe them.

**Banks:** When we do what we do, we really have to stand firm and say, "We're doing music here. We're players if you hire us as players. We're composers if you hire us as composers. But we're never programmers. If you just want me to twist knobs, that's fine, but I'm still making musical decisions, and you're going to pay me that way. You're going to respect the fact that this is what I'm doing. That's why I've gone to the expense of getting the finest instrument that I can buy to do the art work that I do."

**Marinelli:** That's the only way to keep up with this. If you want to have this kind of equipment, you have to go through these politics in order to do it. If you don't, your art suffers, because it's a high-tech art. It's dependent on the instruments, and they don't get better with age. We're riding the wave. We're still on the surfboard, but it's rough water.

## SOUND CELLS™ SAMPLES

- |  |  |
|--|--|
| 1. "Sound-Track" <input type="checkbox"/>              | 26. Orch. Hits #1 <input type="checkbox"/>             |
| 2. Cellos/Violins <input type="checkbox"/>             | 27. Orch. Hits #2 <input type="checkbox"/>             |
| 3. "Air-Choir" <input type="checkbox"/>                | 28. Orch. Hits #3 <input type="checkbox"/>             |
| 4. "Orchestra" <input type="checkbox"/>                | 29. Misc. Samples <input type="checkbox"/>             |
| 5. Harpsicord-Piano <input type="checkbox"/>           | 30. Misc. Samples #2 <input type="checkbox"/>          |
| 6. "Pop" Bass/Fuzz Guitar <input type="checkbox"/>     | 31. "Strat" <input type="checkbox"/>                   |
| 7. Saxophone <input type="checkbox"/>                  | 32. Orchestra Brass <input type="checkbox"/>           |
| 8. Grand Piano <input type="checkbox"/>                | 33. Clavinet/Synth Clav <input type="checkbox"/>       |
| 9. "Bottle Flute"/Harmonica I <input type="checkbox"/> | 34. Electric Guitar <input type="checkbox"/>           |
| 10. Flute/High Strings <input type="checkbox"/>        | 35. Kalimba/"Vibra-Xylophone" <input type="checkbox"/> |
| 11. "Oriental Sounds" <input type="checkbox"/>         | 36. Rock Guitar <input type="checkbox"/>               |
| 12. Strings/Pizzicato Strings <input type="checkbox"/> | 37. Synth #1 <input type="checkbox"/>                  |
| 13. "Male Vocal" <input type="checkbox"/>              | 38. Synth #2 <input type="checkbox"/>                  |
| 14. "Rhythm Section" <input type="checkbox"/>          | 39. Synth #3 <input type="checkbox"/>                  |
| 15. Electric Piano <input type="checkbox"/>            | 40. Banjo/Harmonica II <input type="checkbox"/>        |
| 16. Up-Right Bass/Piano <input type="checkbox"/>       | 41. English Horn/Bassoon <input type="checkbox"/>      |
| 17. Strings <input type="checkbox"/>                   | 42. Clarinet/Oboe <input type="checkbox"/>             |
| 18. Piano-String Mix <input type="checkbox"/>          | 43. "Lonely Flute"/Ocarina <input type="checkbox"/>    |
| 19. Rhodes Piano <input type="checkbox"/>              | 44. Shakuhachi <input type="checkbox"/>                |
| 20. Rock Drums <input type="checkbox"/>                | 45. "Hybrid Brass" <input type="checkbox"/>            |
| 21. Rock Drums II <input type="checkbox"/>             | 46. Wooden Flutes <input type="checkbox"/>             |
| 22. "Pop" Brass <input type="checkbox"/>               | 47. "Metal Percussion" <input type="checkbox"/>        |
| 23. Bright Piano <input type="checkbox"/>              | 48. "Jazz Kit" <input type="checkbox"/>                |
| 24. 12-String Guitar <input type="checkbox"/>          | 49. "Sledge-Hammer Brass" <input type="checkbox"/>     |
| 25. Nylon String Guitar <input type="checkbox"/>       | 50. "Rhythm Section #2" <input type="checkbox"/>       |

☐ Prophet 2000/2002 ☐ w/Memory Expansion  
☐ AKAI S-900 ☐ KORG DSS-1

DISKS ONLY 19.95 EA  
50 DISK LIBRARY ONLY 399.95 (60% OFF!)

Includes case and free disk up-dates (when available)

### MIRAGE LIBRARY

- |  |   |
|--|---|
| 1. "Vocals and Strings" <input type="checkbox"/> | 7. "Guitars" <input type="checkbox"/>               |
| 2. "Strings & Things" <input type="checkbox"/>   | 8. "Interesting & Unusual" <input type="checkbox"/> |
| 3. "Drum City" <input type="checkbox"/>          | 9. "Sound FX & Percussion" <input type="checkbox"/> |
| 4. "Orchestra Hits" <input type="checkbox"/>     | 10. "Keyboards" <input type="checkbox"/>            |
| 5. "Sound Tracks" <input type="checkbox"/>       | 11. "Reeds" <input type="checkbox"/>                |
| 6. "The Synth Disk" <input type="checkbox"/>     | 12. "Misc. Samples" <input type="checkbox"/>        |

DISKS ONLY 19.95 EA.

COMPLETE LIBRARY (36 BANKS) ONLY 159.95!!

DRUM CHIPS AVAILABLE

LINN-DMX • DX • DRUMTRACKS • DRUMULATOR

LINN 9000 • SIMMONS

Shipping included in price.

☐ Send me more info

☐ Send me demo cassette \$5.00



**SOUND  
CELLS**

1016 N. Palm Ave.  
Hollywood, CA 90069  
(213) 659-6727

CA Residents Add Sales Tax

## ACE MUSIC IS KEYBOARDS! HOME STUDIO GEAR FOR THE MIDI MUSICIAN

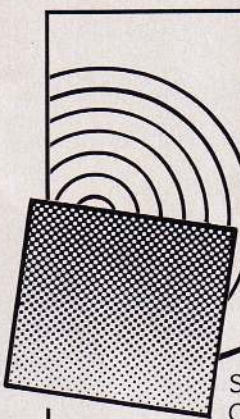
• IN STOCK

• SHIP SAME DAY

EMU • OBERHEIM  
KORG • SEQUENTIAL  
RAMSA  
TASCAM • FOSTEX  
CASIO • PASSPORT  
LEXICON • ULTIMATE  
AKAI • 360 SYSTEMS • TOA  
OTARI • AKG • NEUMANN  
• AUDIO-TECHNICA  
SENNHEISER  
SOFTWARE • SEQUENCERS

CALL FOR EXPERT ADVICE  
AND PRICES

305-891-6201  
**ACE MUSIC CENTER**  
13630 DIXIE HWY., N. MIAMI, FL 33161



# BORED WITH REWINDING?

Tired of constantly having to rewind to the beginning of the tape just to get to the section you want? So was Jim Cooper. He developed the PPS-1 MIDI Code Converter to support Song Position Pointers which allow you to start anywhere in a song and still have complete MIDI lock.

The PPS-1 (Poor People's SMPTE) generates a SMPTE-like FKS code that gives you the power of SMPTE, without all the hassle, at a very affordable \$199.50.

Before you buy another "little box" for MIDI sync, check out JCooper's Innovative Products for Modern Musicians.



1931 Pontius Avenue • West Los Angeles, CA 90025  
(213) 473-8771 • TLX: 5100110679 JL COOPER



